

Remarks

Claims 1-20 are at issue. Claims 1-3, 7, 8, 10, 11, 14-17 & 19 stand rejected under 35 USC 102(e) as being anticipated by Koshima et al (US 6415155). Claims 4-6, 9, 12, 13, 18 & 20 stand rejected under 35 USC 103(a) as being unpatentable over Kohima et al.

The Examiner appears to be missing three main points. First a “tag position” is not the same as field intensity triangulation data. Note that phone 7 cannot even determine its position. To determine the position of the phone 7 you need not only the field intensity data and the associated transmitter ID, but the position of the transmitters. The patent states “position information indicating the location of each of the ID transmitter . . . is stored in the personal computer 1A”. (Col. 4, lines 7-10) “Personal computer 1A identifies the position of mobile terminal 7 from the input received field intensity and the internally-stored position information.” Logically the mobile terminal cannot transmit its position. In addition, the Examiner seems confused about the difference between sending data (field intensity data) and information (position). The numbers 5, 6, 10, 3, 5 represent data. By processing these numbers I can calculate the average 5.8, the sum 29 and get information. You cannot argue that sending the numbers 5, 6, 10, 3, 5 is the same as sending the sum or the average. Clearly, the mobile terminal sends data – field intensity and not information – mobile position.

Second a TDMA (time division multiple access) systems is not time modulation. TDMA is analogous to FDMA (Frequency Division Multiple Access) systems, while time modulation is similar to FM (Frequency Modulation) or FSK (Frequency Shift Keying). No electrical engineer would suggest that FDMA shows or makes obvious FM or FSK modulation. Similarly, a TDMA system does not show or render obvious a time modulation system.

Third, the proposed system has to be accurate enough to locate a firefighter or emergency personal to three of four feet with a building. Anything less accurate could put the person in a different room or a different floor. The field intensity triangulation system shown in Koshima would not work for the intended application. Even in an open

field this technique is not accurate enough to locate a person that closely. In a building with the multipath conditions and the attenuation of the signal due to the walls such a system would be lucky to pin point a person to within 25 feet. The most likely situation would be that the signal could not be received inside most parts of the building. Clearly this would not work in the intended application.

Claims

Claim 1 requires a wearable tag capable of receiving a positioning signal from several positioning systems and then transmitting a tag position to a computer. The Examiner points to Koshima and the phone 7 as the wearable tag. However, the phone 7 does not transmit a phone position, it transmits field intensity data to the personal computer 1A, which determines the position (Actually best radio reception) of the phone 7, See Col. 6, lines 4-6). It is also highly doubtful that a phone is a wearable tag. Claim 1 is allowable over the prior art.

Claim 2 requires a time modulated signal (like a frequency or amplitude or phase modulated signal). None the sections pointed to by the Examiner shows a time modulated signal. A computer search of the patent does not show the use of the words "time modulated". Claim 2 is clearly allowable over the prior art.

Claim 3 requires a time modulated transmission system. None the sections pointed to by the Examiner shows a time modulated signal. A computer search of the patent does not show the use of the words "time modulated". Claim 3 is clearly allowable over the prior art.

Claim 4 requires that there be an alarm when the wearable tag has been stationary for a period of time. The Examiner points to McCarthy paragraph 0009. A careful reading of McCarthy shows that the paragraph is talking about measuring the thermal energy in a trunk of a car. This is not a wearable tag and does not measure if the tag is stationary (the trunk is always stationary with respect to the car). The paragraph does say that if the thermal energy is greater than a predetermined level, the car then determines if it is stationary. It does not determine if the car has been stationary for a predetermined period of time. Claim 4 is allowable over the prior art.

Claim 5 requires an audible alarm. The section pointed to in McCarthy by the Examiner does not state anything about an audible alarm. Claim 5 is allowable over the prior art.

Claim 6 requires the tag to measure the user's vital signs. The section pointed to in McCarthy by the Examiner does not state anything about vital signs. Claim 6 is allowable over the prior art.

Claim 7 requires a time modulated receiver. None the sections pointed to by the Examiner shows a time modulated signal. A computer search of the patent does not show the use of the words "time modulated". Claim 7 is clearly allowable over the prior art.

Claim 8 is allowable as being dependent upon an allowable base claim.

Claim 9 requires the console to flash when there is an alert from the tag. The section pointed to in McCarthy by the Examiner does not state anything about a flashing indicator when there is an alarm. Claim 9 is allowable over the prior art.

Claims 10 & 11 are allowable as being dependent upon an allowable base claim.

Claim 12 requires that there be an alert when the wearable tag has been stationary for a period of time. The Examiner points to McCarthy paragraph 0009. A careful reading of McCarthy shows that the paragraph is talking about measuring the thermal energy in a trunk of a car. This is not a wearable tag and does not measure if the tag is stationary (the trunk is always stationary with respect to the car). The paragraph does say that if the thermal energy is greater than a predetermined level, the car then determines if it is stationary. It does not determine if the car has been stationary for a predetermined period of time. Claim 12 is allowable over the prior art.

Claim 13 requires an audible alarm. The section pointed to in McCarthy by the Examiner does not state anything about an audible alarm. Claim 13 is allowable over the prior art.

Claim 14 requires a time modulated ultra wide band multiple access transmission system (like a frequency or amplitude or phase modulated signal). None the sections pointed to by the Examiner shows a time modulated signal, let alone a wide band multiple access transmission system. A computer search of the patent does not show the use of the words "time modulated". Claim 14 is clearly allowable over the prior art.

Claim 15 requires a directional antenna. There is no discussion in McCarthy of a directional antenna and the Examiner has not even attempt to point to a section showing such a feature. Claim 15 is allowable.

Claims 16 & 17 requires an impulse radio transmitter. This is clearly not shown in McCarthy. None the sections pointed to by the Examiner shows a time modulated signal. A computer search of the patent does not show the use of the words "time modulated". Claims 16 & 17 are clearly allowable over the prior art.

Claim 18 requires that there be an alarm when the wearable tag has been stationary for a period of time. The Examiner points to McCarthy paragraph 0009. A careful reading of McCarthy shows that the paragraph is talking about measuring the thermal energy in a trunk of a car. This is not a wearable tag and does not measure if the tag is stationary (the trunk is always stationary with respect to the car). The paragraph does say that if the thermal energy is greater than a predetermined level, the car then determines if it is stationary. It does not determine if the car has been stationary for a predetermined period of time. Claim 18 is allowable over the prior art.

Claim 19 requires a directional antenna. There is no discussion of directional antennas in Koshima and the Examiner has not even attempt to point to such a discussion. Claim 19 is allowable over the prior art.

Claim 20 requires a GPS receiver. The section of McCarthy pointed to by the Examiner does not discussion a GPS receiver. Claim 20 is allowable over the prior art.

Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

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I hereby certify that an Response is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, P.O. Box 1450 Alexandria, VA 22313-1450, on:

6/18/04
Date

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Signature (Dale Halling)